

REMARKS

In the office action of May 3, 2007, claims 1, 3-4 and 11 were rejected under 135 U.S.C. § 102(b) as being anticipated by Akiyama et al, U.S. Pat. No. 6,057,659 in view of Thiel, U.S. Pat. No. 6,687,379. Since Thiel was not previously of record, the action should not have been made a final action as this was a new ground of rejection. Nevertheless, the Applicant has filed a request for continued examination (RCE).

The Examiner concedes that Akiyama does not disclose that the loudspeaker device for bass signals is a sub-woofer.

The reason that this is important is not just the identity of the component, but its inherent range of operation in the range of 0 Hz - 200 Hz. Thus, it is a feature of the present invention that the crossover frequency is significantly higher than this frequency. It is now specifically recited in claim 1 as about 350 Hz.

In the Akiyama reference, the crossover frequency between the speakers believed to be at 3 Khz and not 350 Hz as mentioned in the office action with respect to claim 2. It is a bass signal amplification network in the Akiyama that supplements the bass circuit for frequencies in a range from 150 Hz to 250 Hz, centered around a frequency of 200 Hz. This is a different technique than in the present invention where the crossover frequency is set significantly higher than 200 Hz, but not nearly as high as 3Khz. Also, the cross-over frequency point in the present application is not controllable by the user. Claim 1 has been amended to include this limitation.

In the Office action, it is said that Thiel discloses an "adjustable cross-over system." The Examiner suggests that this adjustable feature would allow one of ordinary

skill in the art to tune a system to a cross-over frequency including one of 350 Hertz.

In Thiel, however, there is no teaching that the cross-over frequency would be greater than the cut-off frequency of the loudspeaker for bass signals. The system is not a compact system as in the present invention and no specific cross-over frequency is mentioned.

It is not therefore certain or even probable that a user would arrive at the above claimed invention, because the object in Thiel is a blending of sounds and this object is not specific enough to relate to the present invention. In addition, claim 1 has now been amended to recite that the cross-over frequency is not controllable by the consumer, which distinguishes from Thiel in the event that the disclosed frequency was accidentally achieved by a consumer in Thiel.

In addition, claim 4 has been rejected over Akiyama on the grounds that the tubular connectors 21 and 27 provide compartments that connect the housings for the smaller speakers to the main housing for the large speaker.

The present invention is a compact single housing design with multiple compartments and claim 4 has been amended to distinguish Akiyama. It is designed to be included in a computer or other home electronics device as recited in claims 11 and 12.

In contrast, Akiyama is a stand alone portable device and Thiel is a large stand alone stereo system.

In addition, it is believed that claims 6 and 7 add additional novelty and nonobviousness in providing housings of extremely small size. As disclosed on page 1, the problem in the art was the restricted dimensions of the device in which only the restricted space is available for the loudspeaker arrangement. Therefore, there must be some way to isolate and damp out the vibrations from the sub-woofer speaker, so as not to affect the operation of the

other speakers in the assembly and this is more difficult in a single housing design to be incorporated in a limited space, than the portable design of Akiyama.

The other claims all depend directly or indirectly from claims, 1, 4, 6 and 7, and are seen as allowable for at least the same reasons as these claims.

CONCLUSION

After the amendment, claims 1 and 3-12 are still pending. In view of the amendment and remarks, reconsideration of the application and a Notice of Allowance for the above claims is respectfully requested.

Respectfully submitted,

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